Panasonic

Operating Instructions LCD TV

Model No.



TX-17LA1M TX-20LA1M TX-17LA1Q TX-20LA1Q TX-17LA1Z TX-20LA1Z TX-17LA1X TX-20LA1X TC-17LA1H TC-20LA1H

LCD TV shown above is model TX-20LA1.

Please read these instructions before operating your set and retain them for future reference.



Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new LCD TV.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference. Retain your purchase receipt also, and note down the model number and serial number of your set in the space provided on the rear cover of these instructions.

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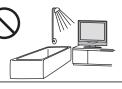
Warnings and Precautions

- This TV set is designed to operate on DC 15V.
- To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture. This TV must not be exposed to dripping or



splashing water, and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

• DO NOT use this unit near water. (Near a bath tub, etc.)



- Unplug the power cord in the event of any malfunction (screen goes blank, no sound, odd sounds, smoke or unusual odours coming from the unit).

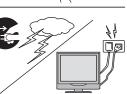
from the unit). Unplug the power cord if

foreign matter or water falls into the unit, or if the unit is dropped or the cabinet is damaged.

• TAKE CARE NOT to damage the power cord.



• DO NOT touch the aerial cable and this unit when there is lightning.



• DO NOT use if the power cord or power plug is damaged, or if the plug does not fit tightly into the socket.



- DO NOT use at a voltage other than indicated.
- DO NOT touch the power plug if your hands are wet.



• Turn the power "Off" before connecting other electrical equipment.



 Ask your sales outlet to install the aerial.



• WARNING : HIGH VOLTAGE!!!

Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside.



• TV Games / Home Computers

Extended use of TV games or home computers with any television set can cause a permanent 'shadow' on the screen. This type of irreversible LCD panel damage, can be limited by observing the following points:

- Reduce the brightness and contrast levels to a minimum viewing level.
- Do not allow a still picture to be displayed for an extended period, as this can cause a permanent afterimage to remain on the LCD TV screen.
- Examples of still pictures include logos, video games, computer images, teletext and images displayed in 16:9 mode.
- This type of LCD panel damage, is not an operating defect, and as such is not covered by the Panasonic warranty.
- The On/Off switch on this model does not fully disconnect the TV from the mains supply.

Remove the mains plug from the wall socket before connecting or disconnecting any leads, or if the TV set is not used for a prolonged period of time.



Note:

• If the set is not switched off when the TV station stops transmitting, it will automatically go to stand-by mode after 30 minutes. This function will not operate when the TV is in AV mode.

Warnings and Precautions

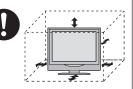
Cabinet and LCD panel care

Remove the mains plug from the wall socket. The cabinet and LCD panel can be cleaned with a soft cloth moistened with mild detergent and water. Do not use solutions



containing benzol or petroleum.

- When ambient temperature is cool, the picture may take a short time to reach normal brightness, but this is not a malfunction. (After brief moment, the picture will have normal brightness.)
- Adequate ventilation is essential to prevent failure of electrical components, we recommend that a gap of at least 10cm is left all around this television



receiver even when it is placed inside a cabinet or between shelves.

• Avoid exposing the TV set to direct sunlight and other sources of heat. To prevent fire, never place any type of candle or naked flame on top or near the TV set.



• DO NOT insert foreign objects (metal or easily flammable objects).



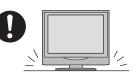
 DO NOT stand, or place heavy objects on the unit. Particular care should be taken by families with small children.



• DO NOT place in an unstable location.



Place in a safe location.



• DO NOT jolt the unit.



Preparation

Receiver Location

Locate for comfortable viewing. Avoid placing where sunlight or other bright light (including reflections) will fall on the screen.

Use of some types of fluorescent lighting can reduce remote control transmitter range.

Adequate ventilation is essential to prevent internal component failure. Keep away from areas of excessive heat or moisture.

To insure optimum picture do not position magnetic equipment (motors, fans, other speakers, etc.) nearby.

Optional External Equipment

The Video/Audio connection between components can be made with shielded video and audio cables. For best performance, we recommend 75 ohm coaxial aerial cable is used. Cables are available from your dealer or electronic supply store.

Before you purchase any cables, be sure you know what type of output and input connectors your various components require. Also determine the length of cable you'll need.

• For optimum quality picture

When the LCD is exposed to light from outdoors or lighting fixtures, high-contrast pictures may not be displayed clearly. Turn off florescent lamps near the LCD and place in a location not exposed to outdoor light.

How to use the LCD stand

Adjust the stand to your desired angle. The stand angle can be adjusted between 5 ° forward to 15 ° back.





Before Operating This Set

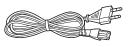
Supplied Accessories

Check the accessories before installations.

Operating Instruction book



Mains Lead
 TX-17LA1M, TX-20LA1M

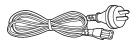


 AC Plug Adaptor TX-17LA1X, TX-20LA1X only



Remote Control Transmitter

TX-17LA1Q, TX-20LA1Q TX-17LA1Z, TX-20LA1Z



• Batteries for the Remote Control Transmitter (2 \times R6 (AA) size)



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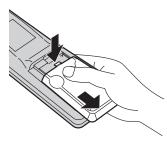
AC Adaptor

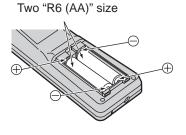
TX-17LA1X, TX-20LA1X TC-17LA1H, TC-20LA1H



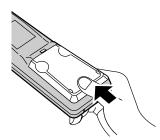
Fitting remote control batteries

- **1** Open the cover. Apply slight downward pressure while pulling towards the bottom.
- **2** Batteries: Use two "R6 (AA)" size batteries. Insert the batteries ensuring the correct polarities. This is identifiable by the "+" and "-" symbols on the batteries and inside the battery compartment.





3 Replace the cover.



Do not use rechargeable (Ni-Cd) batteries.

They are different in shape and performance and may fail to ensure correct operation.

▲ Battery cautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the Remote Control or cause the batteries to burst.

Observe the following precaution:

- 1. Batteries shall always be replaced as a pair. Always use new batteries when replacing the old set.
- 2. Do not combine a used battery with a new one.
- 3. Do not mix battery types (example:"Zinc Carbon" with "Alkaline").
- 4. Do not attempt to charge, short-circuit, disassemble, heat or burn used batteries.
- 5. Battery replacement is necessary when remote control acts sporadically or stops operating the TV set.

Antenna cover removal and fitting

TX-17LA1, TC-17LA1

Removal



- Grasp the cover at the bottom end and initially remove by pulling slightly toward yourself.
 Claudu and act in the
- 2. Slowly pull out in the downward direction.

Fitting



Insert the claws (at 4 points) at the top end.
 Push it until click.

TX-20LA1, TC-20LA1

Removal



1. Grasp the opening and initially pull the cover slightly towards yourself to disengage the claws (at 2 points on both the left and right).

2. Slowly pull out in the downward direction.

- Fitting 1. 2.
 - Insert the claws (at 4 points) at the top end.
 Push it until click.

Cable cover removal and fitting

Removal



- 1. Disengage the claws at the uppermost end.
- 2. Slowly pull out in the upward direction.

Fitting

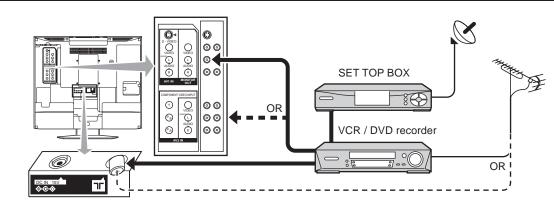


- 1. Insert the claws (at 2 points) at the bottom.
- 2. Push it until click.

Note:

Depending on the type of cable used it may not be possible to close the cover. In such cases the cable may be routed through the antenna cover.

Quick Start Guide



Plug in aerial and connect ancillary equipment

3 STR F -/~ +/^ TV/AV ው/| \square \square Main Power switch LED Indicator Adaptor connection only : Orange STB: Red On: No Light Power Indicator -Remote control signal sensor

- **1** Connect the mains lead to the AC Adaptor.
- 2 Connect the AC Adaptor DC plug to the DC IN socket.

3 Plug into household mains socket.

- Be sure to use the mains lead and AC adaptor included in the accessories.
- Do not use the AC adaptor for other than the specified equipment.
- Unplug the AC adaptor if it is not used for long time.
- Do not place any objects on the AC adaptor.
- Do not use the AC adaptor outdoors.
- Do not attempt to repair the AC adaptor if it is broken or malfunctioning. Refer the servicing to the service representative.
- Do not try to open the AC adaptor.
- Do not use water or wet cloth for cleaning the AC adaptor.
- ⊕/| Press the ^{b/|}
 □ switch on the LCD TV to
 □ turn the set on.

IMPORTANT NOTES

There are two ways to switch the TV set to stand-by mode.

(A) Press the d/I switch on the LCD TV and check RED LED is lit.

OR

(B) Press the **(b)** Stand-by button on the remote control.

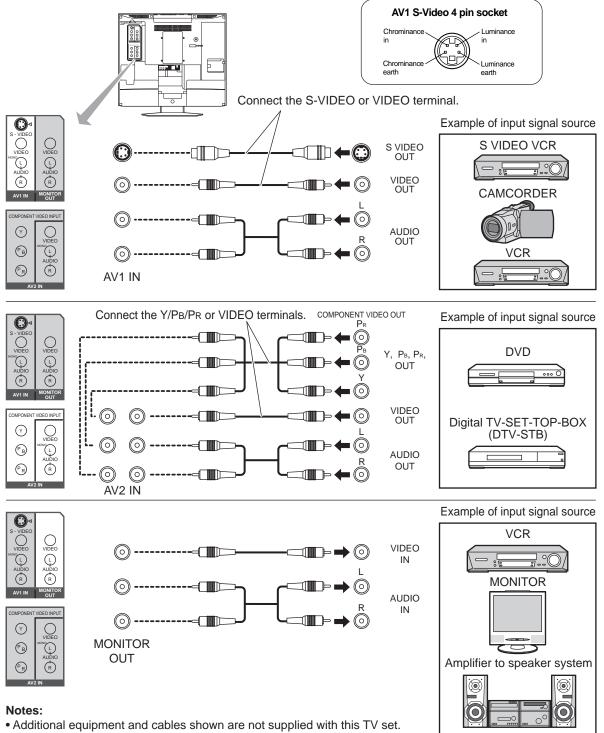
The TV set can be switched on by the remote control if it was switched to stand-by using method (A) or method (B).

Connections

How to connect the input terminals

Connects VCRs and other peripheral equipment

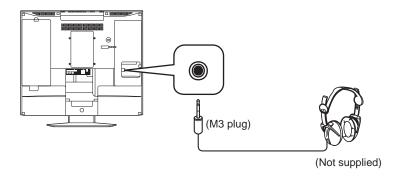
S-Video socket information



- Do not connect a computer with TTL output (5V) to this set.
- Select the desired VIDEO input position by pushing the TV/AV button. (see page 10, 11)

Connecting Headphones / Earphones

Connect headphones / earphones as follows.

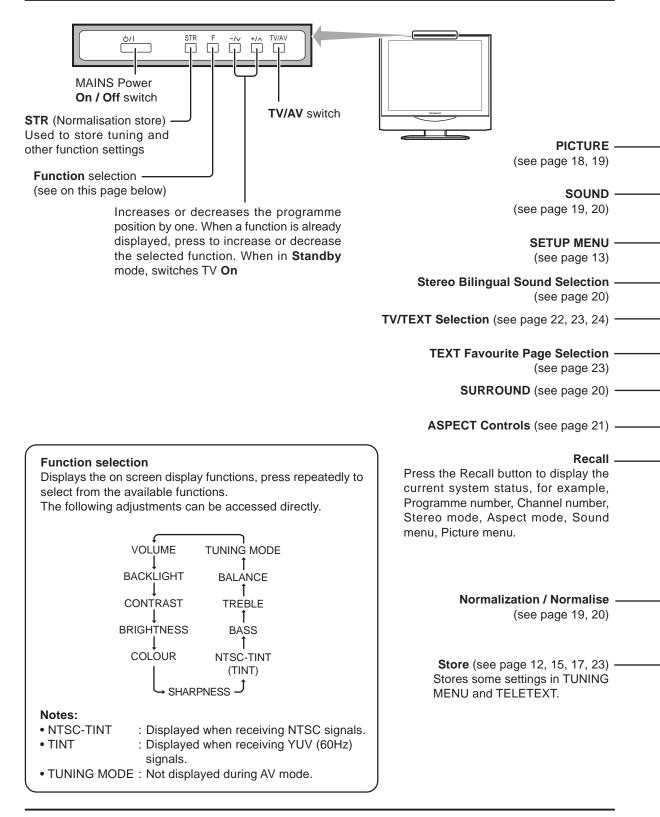


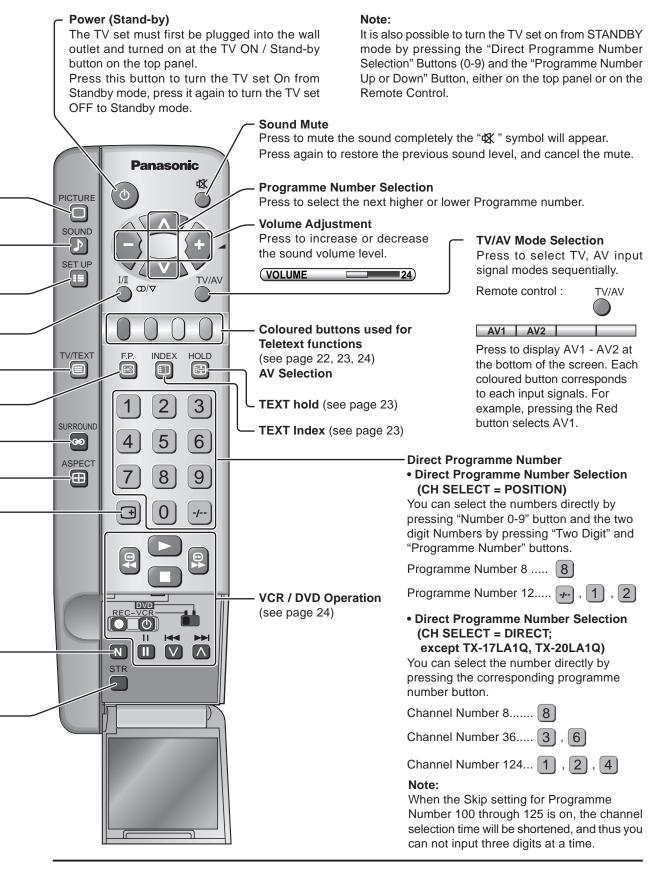
Notes:

- The volume level of the headphones can be adjusted by selecting "HEADPHONE VOL." from the SOUND.
- Additional equipment and cables shown are not supplied with this TV set.

Basic controls

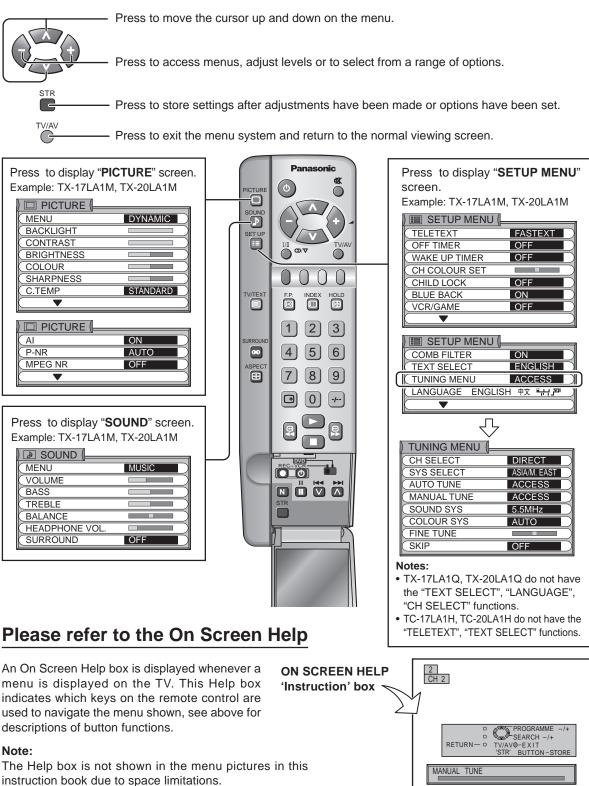
Top panel controls and Remote control





Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu system. Use the remote control as shown below to access and adjust features as desired.



SETUP MENU

The setup menu provides access to various advanced features and also to the Tuning menu.

TELETEXT FASTEXT SETTIP OFF TIMER OFF 1 :3 - Press to display the setup menu screen. OFF WAKE UP TIMER CH COLOUR SET 2 Press to select the menu to adjust. OFF CHILD LOCK BLUE BACK ON OFF VCR/GAME • Press to adjust the desired setting. SETUP MENU (Press at any time to go back to watching TV. COMB FILTER ON Notes: ENGLISH TEXT SELECT TX-17LA1Q, TX-20LA1Q do not have the "TEXT SELECT", TUNING MENU ACCESS LANGUAGE ENGLISH 中文 ", 기기 "LANGUAGE" functions. • TC-17LA1H, TC-20LA1H do not have the "TELETEXT", "TEXT (TV mode) SELECT" functions. TELETEXT Allows you to choose 2 modes. (see page 22) • TX-17LA1Q, TX-20LA1Q other TOP \iff List FASTEXT ←→ List OFF TIMER Switches the TV off within a preset time which you can choose from between 0 to 90 minutes in 15 minute intervals. \rightarrow OFF \iff 15 \iff 30 \iff 45 \iff $\rightarrow 90 \iff 75 \iff 60 \iff$ WAKE UP TIMER Switches the TV on within a preset time which you can choose from between 0 to 12 hours in 15 minutes intervals. CH COLOUR SET Colour density varying between broadcast channels can be adjusted to three levels for each reception channel. CHILD LOCK When ON, picture and sound of the TV/AV mode being viewed will disappear and a Black screen will appear. CHILD LOCK can be set for each programme number and each AV mode. **BLUE BACK** You can choose Blue Back display ON or OFF when there is no signal. VCR/GAME Reproduction of irregular signals, such as certain TV games and rental video tapes, may be improved. COMB FILTER Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen. Set Comb filter to On to display sharper and more accurate colours. **TEXT SELECT** Select character set, so that all characters needed are available for text on teletext pages (eq: cyrillic characters, etc). Mode Languages: ENGLISH/CIS/E.EUROPE/PERSIAN COLOUR SYS During AV mode, COLOUR SYS is displayed. E SETUP MENU (Colour System) If a clear picture with current colours cannot be obtained COLOUR SYS AUTO when a Broadcast or AV signal is received, this function COMB FILTER ON ENGLISH TEXT SELECT is used. LANGUAGE ENGLISH 中文 "十字" → AUTO ←→ PAL ←→ SECAM ← → NTSC 3.58 < → NTSC 4.43 </p> (AV mode) PAL, SECAM and NTSC 3.58 are different colour signal broadcast transmission systems applicable to differing countries. NTSC 4.43 is a trick playback mode used in special VCR's to playback NTSC recorded video tapes through PAL television equipment. TUNING MENU Provides access to many other features including SYS SELECT and AUTO TUNE (see page 15). Not displayed during AV mode. LANGUAGE You can select the OSD language. English <--> Chinese <--> Arabic

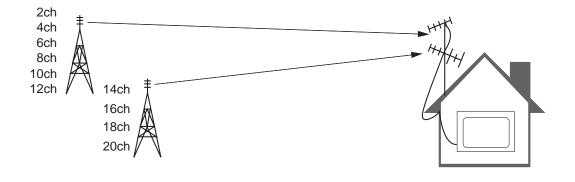
Example: TX-17LA1M, TX-20LA1M

E SETUP MENU

TUNING MENU

Channel Selection

Select the most easily viewed channel selection method.



Example

· ·		
Programme Number	Channel Display	Received Channel
1	2	2
2	4	4
3	6	6
4	8	8
5	10	10
6	12	12
7	14	14
8	16	16
9	18	18
10	20	20

Example

Programme	Channel	Received
Number	Display	Channel
1	_	_
2	2	2
3	_	-
4	4	4
5	_	-
6	6	6
7	-	-
8	8	8
9	_	_
10	10	10
:	:	:
20	20	20
•		:

POSITION SELECT

When the Channel Selection is on POSITION, and AUTO TUNE is performed, the unit memorises the channels Tuned in order from Programme No.1.

Press the button 1 to view channel 2.

Press the button 2 to view channel 4.

Press the button (3) to view channel 6.

During Position mode various reception channels can be viewed.

DIRECT SELECT [Except TX-17LA1Q, TX-20LA1Q]

When the Channel Selection is on DIRECT, and AUTO TUNE is performed, the unit memorises the programme number which is the same as the channel Tuned.

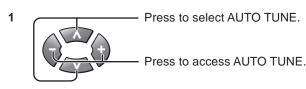
This method allows you to select the desired channel by pressing the channel display number directly on the remote control to select the station. The channel display numbers for the broadcast stations in each region are listed on page 26.

TUNING MENU

1 2 3 3 TV/AV	 Press to display the SETUP MENU. Press to select the TUNING MENU. Press to access the TUNING MENU screen. Press to select the menu to adjust. Press to select the menu to adjust. Press to adjust option or access chosen menu. Press at any time to go back to watching TV. Pressing this button after having adjusted a feature will store the setting as the default (replacing the factory setting). 		
CH SELECT (Channel Selection)	[Except TX-17LA1Q, TX-20LA1Q] Select the most easily viewed channel selection method. (see page 14) POSITION		
SYS SELECT (System Selection)	Select the system.		
	SYSTEM REGION		
	CHINA China HK/UK Hong Kong, United Kingdom ASIA/M.EAST Malaysia, Singapore, Thailand, Asia countries, Kuwait, Saudi Arabia, United Arab Emirates, Middle East countries, etc. NZ/INDONES New Zealand, Indonesia, etc. AUSTRALIA Australia E·EUROPE CIS, Poland, etc. SPECL VER South Africa AMERICA U.S.A., Chile, Mexico, Panama, Pelu, Philippines, Taiwan, Venezuela, etc. CATV USA CATV JAPAN Japan		
AUTO TUNE	Allows you to automatically retune the TV. Useful if you move house and wish to retune your TV to the local stations. (see page 16)		
MANUAL TUNE	Allows individual program positions to be tuned, manually. (see page 17)		
SOUND SYS (Sound System)	You can change the sound system used for a programme channel. Choose the required sound system: → 4.5 MHz ←→ 5.5 MHz ← → 6.5 MHz ←→ 6.0 MHz ←		
COLOUR SYS (Colour System)	Lets you select the correct transmission standard for the transmission signal being received (see page 13). AUTO -> PAL -> SECAM - NTSC 3.58 -> NTSC 4.43 -		
FINE TUNE	Use to make small adjustments to the tuning of an individual station (useful for example when weather conditions are affecting reception quality of a program). To cancel the FINE TUNE, tune again by MANUAL TUNE.		
SKIP	It is possible to skip Program Number on which no TV stations are tuned appearing on the screen. The function is only effective when pressing the Program Number UP or DOWN button either on the TV set or on the remote control.		

AUTO TUNE

Before AUTO TUNE, set the "**CH SELECT**" and "**SYS SELECT**". Follow the step on the previous page to display the TUNING MENU screen.



Notes:

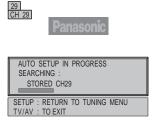
2

- If you proceed with the next step all tuning data will be erased (all stations and their programme positions stored in your TV's memory will be wiped out so that the new settings can be stored).
- If you exit the procedure after this point and before AUTO TUNE is complete, no station information will be stored. Restart and complete the AUTO TUNE procedure so that the TV is re-tuned.



- Press to start AUTO TUNE.

) TUNING MENU (=	
CH SELECT	DIRECT
SYS SELECT	ASIA/M. EAST
AUTO TUNE	ACCESS
MANUAL TUNE	
SOUND SYS	5.5MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF
29 CH 29	



Once this operation is completed the TV will display the program now stored on programme position 1.

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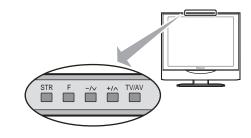
 Press at any time to go back to watching TV (please read the Note in the above procedure).

AUTO TUNE (via top panel)

It is also possible to use the control panel buttons on the top of the TV to tune individual programme positions

- 1 Press F (Top panel) until Tuning mode is reached.
- 2 Press $\stackrel{-/\sim}{\blacksquare}$ or $\stackrel{+/\wedge}{\blacksquare}$ to access Tuning mode.
- 3 Press 🖡 (Top panel) to access Auto tune.
- 4 Press $\stackrel{-/}{\longrightarrow}$ or $\stackrel{+/}{\longrightarrow}$ to start search.

Press $\prod_{i=1}^{F}$ at any time to exit the Tuning menu.

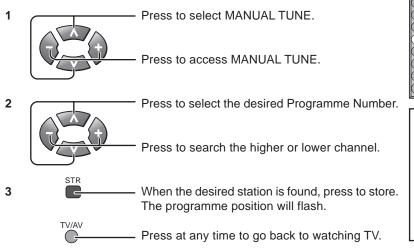


Belpful Hint

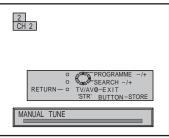
- 1. If a clear picture with correct colours cannot be obtained when a Broadcast or AV signal is received, refer to the "Colour System" selection on page 15.
- After the Automatic tune is finished, press the Programme Number "Up" Button to confirm the tuning condition for each Programme Number. If some Programme Numbers are unused, it is possible to skip such Programme Numbers. Please refer to the Programme SKIP function on page 15.

MANUAL TUNE

Before MANUAL TUNE, set the "CH SELECT" and "SYS SELECT". Follow the step on page 15 to display the TUNING MENU screen.



) TUNING MENU (
CH SELECT	DIRECT
SYS SELECT	ASIA/M. EAST
AUTO TUNE	
MANUAL TUNE	ACCESS
SOUND SYS	5.5MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF



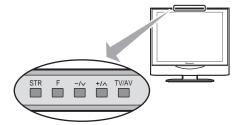
MANUAL TUNE (via top panel)

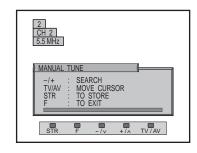
It is also possible to use the control panel buttons on the top of the TV to tune individual programme positions

- Press F (Top panel) until Tuning mode is reached.
- 2 Press $\stackrel{-/\vee}{\longrightarrow}$ or $\stackrel{+/\wedge}{\longrightarrow}$ to access Tuning mode.
- Press (Top panel) until Manual tune is reached.
- Press to move between Change programme, Search and Change TV system.
- 5 Press $\stackrel{-/\vee}{\longrightarrow}$ or $\stackrel{+/\wedge}{\longrightarrow}$ to change programme position or start search.

When the desired station is found, press to store. The programme position will flash. Repeat above procedure to tune additional programme positions.

Press $\prod_{i=1}^{F}$ at any time to exit the Tuning menu.

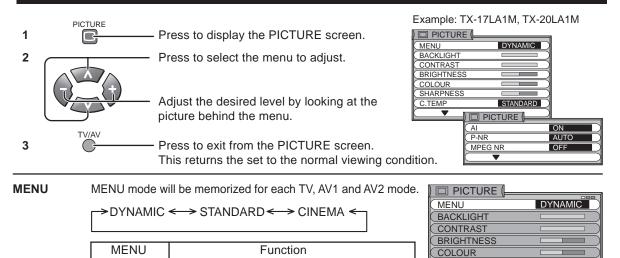




Belpful Hint

- 1. If a clear picture cannot be obtained even when a Broadcast or AV signal is received, refer to the "Colour System" selection on page 15.
- 2. After the Manual tune is finished, press the Programme Number "Up" Button to confirm the tuning condition for each Programme Numbers. If some Programme Numbers are unused, it is possible to skip such Programme Numbers.
- 3. When using a VCR without video and audio input/output terminals, it is convenient to connect the aerial cable as indicated in the instruction manual of VCR and to set the designated channel to programme No."0". In that case, perform manual tune after setting the colour system and sound system in advance. Further, in multi-system VCR, it is more convenient to set the designated channel to several programme Numbers.

PICTURE



Displays a bright screen with maximum contrast.

BACKLIGHT, CONTRAST, BRIGHTNESS, COLOUR, SHARPNESS, NTSC-TINT (TINT)

Displays standard image.

Ideal for movies in the dark room.

DYNAMIC

STANDARD

CINEMA

You can change the level of each Item (BACKLIGHT, CONTRAST, BRIGHTNESS, COLOUR, SHARPNESS, NTSC-TINT) for each MENU (DYNAMIC, STANDARD and CINEMA) according to your personal preference.

) 🔲 PICTURE (1
MENU	DYNAMIC
BACKLIGHT	
CONTRAST	
BRIGHTNESS	
COLOUR	
SHARPNESS	
C.TEMP	STANDARD

STANDARD

SHARPNESS

C.TEMP

With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste.

Item	Effect	Function
BACKLIGHT	Darker 🕞 🚺 Brighter	Brightness of the back light is adjusted.
CONTRAST	Darker 🕞 🚺 Brighter	Adjusts for contrast.
BRIGHTNESS	Less 🕞 🚺 More	Adjusts for easier viewing of dark pictures such as night scenes and hair.
COLOUR	Less 🕞 🚺 More	Adjusts slightly to a lighter.
SHARPNESS	Less 🕞 🚺 More	Displays a sharp image.
NTSC-TINT (TINT)	Less 🕞 🚱 More	Adjusts the picture hue.

Notes:

- When the TV is receiving NTSC signals, NTSC-TINT is displayed and level adjustment is possible.
- When the TV is receiving YUV (60Hz) signals, TINT is displayed and level adjustment is possible.
- Only BACKLIGHT and CONTRAST will be displayed during TEXT mode.

C.TEMP

Allows you to set the overall colour tone of the picture.

) 🔲 PICTURE (
MENU	DYNAMIC
BACKLIGHT	
CONTRAST	
BRIGHTNESS	
COLOUR	
SHARPNESS	
C.TEMP	STANDARD

PICTURE / SOUND

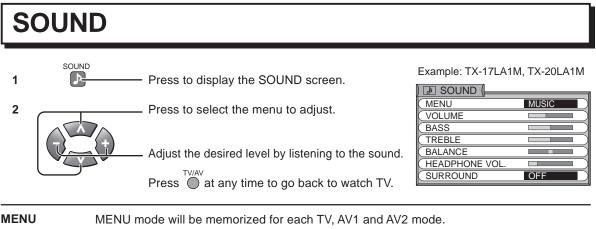
AI (Artificial Intelligence)	Automatically analyses the incoming picture and processes it to give improved contrast and optimum depth of field. ON	AI ON P-NR AUTO MPEG NR OFF
P-NR	Reduces unwanted picture noise.	AI ON P-NR AUTO MPEG NR OFF
MPEG NR	Reduces MPEG noise. This function is effective in reducing the digital block noise when viewing DVD, VCD or digital broadcasting. The effect will be changed based on the scene and image. Note: MPEG Compression technology of the image signal adopted by DVD, VCD or digital broadcasting.	PICTURE

🗑 Helpful Hint (**N** Normalization)

By pressing the Normal "N" Button on the Remote Control while the PICTURE menu is displayed, the selected menu will be changed to the Normal Mode.

Normalization will not occur if the menu is not displayed when the "N" Button is pressed.

The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".



• You can change the level of each Item (VOLUME, BASS, TREBLE, BALANCE and

HEADPHONE VOL.) for each MENU (MUSIC, NEWS and CINEMA).

→MUSIC < → NEWS < → CINEMA <</p>

MENU	Function
MUSIC	Amplifies the Low frequencies and outputs optimum sound. For music programmes for example.
NEWS	Human voices (middle pitch sounds) will sound more clear.
CINEMA	For movie and drama programmes.

) 🔊 SOUND ((
MENU	MUSIC
VOLUME	
BASS	
TREBLE	
BALANCE	
HEADPHONE VOL.	
SURROUND	OFF

Item	Effect		ect	Function	
Volume	Less		+ More	Adjusts output volume.	VOLUME BASS
Bass	Less		+ More	Adjusts lower deeper sounds.	TREBLE BALANCE HEADPHONE
Treble	Less		More	Adjusts higher sharper sounds.	
Balance	Left SP		Right SP	Adjusts the sound level difference between left and right speakers.	
Headphone volume	Less		More	Adjusts Headphone volume.	

VOLUME, BASS, TREBLE, BALANCE, HEADPHONE VOL.

) 🔊 SOUND (1
MENU	MUSIC
VOLUME	
BASS	
TREBLE	
BALANCE	
HEADPHONE VOL.	
SURROUND	OFF)

SURROUND

To enjoy a concert hall effect, turn SURROUND to on.

$$ON \iff OFF$$

Switching is also possible by pressing the 💿 button.

Press to switch between ON and OFF.

SURROUND ON 🔶 SURROUND OFF

) 🔊 SOUND (
MENU	MUSIC
VOLUME	
BASS	
TREBLE	
BALANCE	
HEADPHONE VOL.	
SURROUND	OFF

The benefits of SURROUND sound are enormous.

You can be completely enveloped in sound; just as if you were at a concert hall or cinema. The SURROUND effect can be obtained without the use of external SURROUND speakers.

👻 Helpful Hint (**N** Normalization)

By pressing the Normal "N" Button on the Remote Control while the SOUND menu is displayed, the selected menu will be changed to the Normal Mode.

Normalization will not occur if the menu is not displayed when the "N" Button is pressed.

The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".

Stereo Bilingual Sound Selection



When you receive the stereo/bilingual sound system, sound output modes can be selected by pressing the stereo/bilingual sound selection button.

Audio Signal	STEREO	MAIN I	SUB II	MONO	
Mode Indicator	\bigcirc	I	Π	\bigtriangledown	
NICAMUsed in New Zealand, Malaysia, Thailand, Indonesia etc.					
Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONO I (MAIN I)	NICAM STEREO	NICAM DUAL MONO (MAIN I/ SUB II)	
Mode Indicator	No Indicator \rightarrow	$I \leftrightarrow \nabla$	$\bigcirc \longrightarrow \bigtriangledown$	I I	

A2(German)Used in Australia, Malaysia, Singapore, China.

· /		01	
Type of broadcast	Regular broadcast (Standard Audio)	BILINGUAL or DUAL MONO: MAIN I / SUB II	STEREO
Mode Indicator	No Indicator 🛶 🖓	I 🕶 I	$\bigcirc \leftrightarrow \bigtriangledown$

Notes:

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the "MONO" position, using the stereo/bilingual sound selection button.
- "DUAL", also known as "DUAL MONO" or as "BILINGUAL" is not currently transmitted in some countries.

ASPECT Controls

The TV will allow you to enjoy viewing the picture at its optimum size and aspect.



ASPECT button

The aspect mode changes each time the ASPECT button is pressed.

TV mode : 4:3 ← 16:9

AV mode : 4:3 < 16:9 < AUTO <

Note:

TX-17LA1Q, TX-20LA1Q do not have the AUTO mode.

Mode	Picture	Explanation
4 : 3		4:3 will display a 4:3 picture at its standard 4:3 size and can be selected if you wish to view in this format.
16 : 9		16:9 will display a 16:9 picture at its standard 16:9 size and can be selected if you wish to view in this format.
AUTO	4:3 4:3 Signal 4:3 Signal 16:9 0 0 0 16:9 0 0 0 16:9 0 0 0 0 16:9 0 0 0 0 0 0 0 0 0 0 0 0 0	Selecting AUTO mode of this TV will automatically cause the TV to display any incoming picture at its correct format, i.e. 16:9 or 4:3.

Advanced Remote Control Operation

TELETEXT



- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext.
- Pressing the Picture button whilst in Teletext operation will display the contrast function
 - with a cyan bar, press e or to alter the setting as required.
- Pressing the Setup button whilst in Teletext operation will display special function options at the bottom of the screen.
- When in Teletext mode, the volume may still be altered to the desired listening level after pressing SOUND or MUTE button.

What is List mode?

In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the LCD TV's memory.

What is FASTEXT? (Except TX-17LA1Q, TX-20LA1Q)

In FASTEXT mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

What is TOP? (TX-17LA1Q, TX-20LA1Q)

• In TOP mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

Note:

TC-17LA1H, TC-20LA1H do not have the "TELETEXT" function.

TV/T	EXT	TV / Teletext mode Press $\overset{\text{TV/TEXT}}{\square}$ to switch between the current programme and teletext mode.
A V	1 2 3 4 5 6 7 8 9 0	Page Selection Pages can be selected in two ways: a. Press or or to increase or decrease the page number by one. b. By entering the page number, using 0 -9 on the remote control.
SET UP	Green	Full / Top / Bottom Press Tup to display special functions, followed by the Green button. Press the Green button again to expand the BOTTOM half. Press again to return to normal (FULL) size.
SET UP	Red	Reveal Press Ter up to display special functions, followed by the Red button to reveal hidden words e.g. quiz page answers. Press again to hide.
Red Gree	en Yellow Blue	Red / Green / Yellow / Blue buttons In FASTEXT (TOP) mode they correspond to the differently coloured subjects. In List mode they correspond to the differently coloured page numbers.

It is not possible to change the programme position when in News flash, Update or Sub Coded Page Access operation.

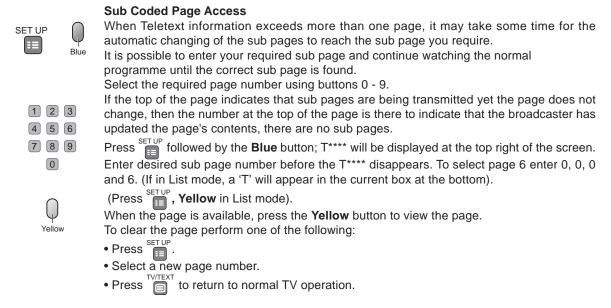
1 2 3 Red Green Yellow Blue 4 5 6 7 8 9 0 STR 0	List Store In List mode the four page numbers can be altered (programme positions 1 - 25 only). To do this, press one of the four coloured buttons and enter the new page number. Press and hold $\prod_{n=1}^{STR}$, the page number will change to white indicating that the page is stored.
HOLD	Hold Press I to hold the Teletext page when viewing multi-page information. Press again to return to automatic page update.
I 2 3 STR Blue 7 8 9 F.P. 0	Favourite Page (F.P.)Stores a favourite page in memory for instant recall. To store such a page, the TV must be in List mode, and the programme position must be from 1 - 25.Press the Blue button, select the page number, then press and holdThe page number is now stored.PressPressto recall this page.Note:If Teletext subtitling is in use, the aspect ratio is set to 16:9.
SET UP Vellow	Update Display Press Seture to display special functions, followed by the Yellow button to view the TV picture whilst searching for a Teletext page. When found, the screen will display the page number at the top left. Press the Yellow button to view the page. Press Turext to return to normal TV operation. News Flash Seture When a news flash page has been selected, press I , Yellow, to view the TV picture. When an update is received, the page number will be displayed on screen. Press I to return to normal TV operation. Dytext I to return to normal TV operation. Press I to return to normal TV operation. Press I to return to normal TV operation. Press I to return to normal TV operation. Update Press I to return to normal TV operation. Update Press I to return to normal TV operation. Update Press I to return to normal TV operation. Update I to return to normal TV operation. Update I to return to normal TV operation. When an update is received, the page number will be displayed at the top left of the screen. Press I to return to normal TV operation. Press I to return to normal TV operation.
	Index When in Top operation



Press \square to return to the main index page.

Depending on the way information is transmitted, this may have to be pressed more than once to return to the main index page.

Advanced Remote Control Operation

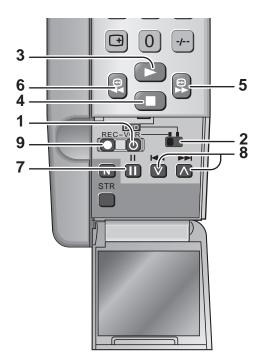


Note:

When using subtitles, the picture brightness may vary to a preset level.

VCR / DVD Operation

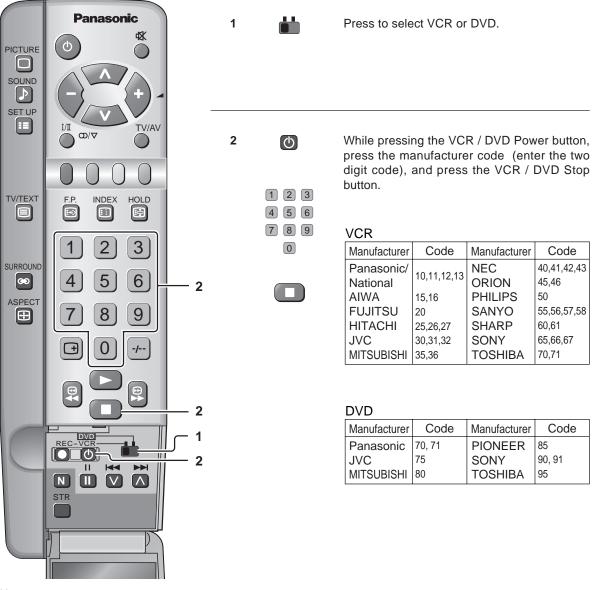
The Remote Control is capable of operating some functions of selected VCR and DVD (Digital Versatile Disc) equipment. Some VCR and DVD equipment have different functions, so to ensure compatibility please refer to the equipment's instruction book or consult your dealer for details.



	Button	Function
1		Standby
2		VCR / DVD selection switch
3		Play
4		Stop
5	£€	VCR : Fast Forward / Cue DVD : Slow / Search
6	€	VCR : Rewind / Review DVD : Slow / Search
7	Ë	Pause / Still
8		VCR : Programme number Up / Down DVD : Skip
9	REC	Record

Manufacturer setting

Remote Control Operation is possible for the VCR's and DVD's of the various manufacturers. After completion of setting, execute the various operations after pressing the VCR/DVD selection switch.



Note:

After setting, execute operation confirmation. If there is no operation, set a different code.

🗑 Helpful Hint

- 1. The respective VCR / DVD manufacturer code is cancelled when battery has been exchanged. Please set it again.
- 2. Depending on the model, operation of VCR's or DVD's of the manufacturers listed above may not be possible.
- 3. In some cases, new products may not be operative.
- 4. It will not operate with other than the above manufactures.

Channel Allocation

SYS SELECT	CHINA	HK/UK	ASIA/M.EAST	NZ/INDONES	AUSTRALIA	E.EUROPE	SPECL VER	AMERICA	CATV	JAPAN
CH DISPLAY					RECEIVE					
0 1 2 3 4 5 6 7 5		- - - - - -			- 0 1 2 3 4 5 \$2					
7 5 11 12 13 14 15 16 5 20	12 13	- - - - -) 11 12 - -	\ 11 - -	S2 S10) 11 12 -	11 12 13 -	13 14	Ş	12 13
	<u>}</u>	- - - -	- - - -	- - - -	6 5 9 9A	- - - -		$\sum_{i=1}^{i}$	$\sum_{i=1}^{i}$	$\left \right\rangle$
21 22 23 24 57 58 55 59 62 63 63 69	$\left\{ \right\}$		21	21	10 11 12 S11 (21		Ş	$\left\{ \right\}$	Ş
57 58 59	(57 - -		$\left \right\rangle$	$\left\{ \right\}$	S44 20 21		Ş	Ş	$\left\langle \right\rangle$	Ş
62 63 5 69	- - -	62 63 5 69	62 63 5 69	62 63 5 69	$\left\{ \right\}$	62 63 5 69	62 63 5 69	62 63 5 69	62 63 (62 C13 (
70 5 73 74 75 76 77 78 79		- - S'1 S'2 S'3 - -	- - S'1 S'2 S'3 - -	- - S'1 S'2 S'3 - -		- - S'1 - - -	- - S'1 S'2 S'3 - -			
80 81 5 89	_ 21 29	S1 S2 510	S1 S2 5 S10	S1 S2 510	$\left \right\rangle$	S1 S2 5 S10	S1 S2 510	- - - -	$\overline{\langle}$	$\langle \rangle$
90 91 92 93 94 95 96 97 98 99	Z10 Z11 Z12 Z13 Z14 Z15 Z16 Z17 Z18 Z19	S11 S12 S13 S14 S15 S16 S17 S18 S19 S20	S11 S12 S13 S14 S15 S16 S17 S18 S19 S20	S11 S12 S13 S14 S15 S16 S17 S18 S19 S20		S11 S12 S13 S14 S15 S16 S17 S18 S19 S20	- S14 S15 S16 S17 S18 S19 S20	- - - - - - - - -	99	C49
100 5 107 5 117 118 5 120	Z20 Z37 - -	S21	S21	S21	69 - - - -	S21	S21	- - - - -		- - - - -
ر 125	_	-		-		-	-) 125	-

Troubleshooting

If there is a problem with your LCD TV please refer to the table below to determine the symptoms, then carry out the suggested check. If this does not solve the problem, please contact your local Panasonic dealer, quoting the model number and serial number (both found on the rear of the TV).

Sympto	oms	
Picture	Sound	Checks
Snowy Picture	Noisy Sound	Aerial location, direction or connection
Multiple Image	Normal Sound	Aerial location, direction or connection
Interference	Noisy Sound	Electrical appliances Cars/Motorcycles Fluorescent lights
Normal Picture	No Sound	Volume level Sound mute switched on
? No Picture	No Sound	TV set to AV mode Not plugged into A.C. outlet Not switched on Picture / Sound controls set at minimum levels Check if in stand-by mode
No Colour	Normal Sound	Colour Controls set at minimum levels Colour System
Poor or Distorted Picture	Weak or No Sound	Retune Channel (s)
Normal Picture	Weak or distorted sound	Sound reception may have deteriorated. Sound System
There may be red spots, blue spots and green spots on the screen	Normal Sound	This is a characteristic of liquid crystal panels. This is not a malfunction and can not be a reason for service claim. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green, or red. Please note this does not affect the performance of your LCD.

Maintenance

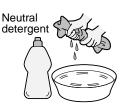
To clean this unit, wipe with a soft, dry cloth.

- If the surfaces are extremely dirty, use a soft cloth dipped in soap-and-water solution or a weak detergent solution.
- Use eyeglass cleaner to remove stubborn dirt from the LCD.
- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.
- Do not wipe the LCD with water.

Wipe the cabinet with a soft cloth

If the cabinet is heavily soiled, wipe with a well-wrung soft cloth dipped in kitchen cleanser (neutral) diluted with water. **CAUTION:**

If water or similar substances get inside the monitor via the liquid crystal panel surface, a malfunction may result.



Specifications

	TX-17LA1M, TX-17LA1Q, TX-17LA1Z,		TX-20LA1M, TX-20LA1Q, TX-20LA1Z,	
	TX-17LA1M, TX-17LA1Q, TX-17LA12,		TX-20LA1M, TX-20LA1Q, TX-20LA12, TX-20LA1X, TC-20LA1H	
Power Source	AC 100 - 240 V, 50 / 60 Hz			
	Ale root Z40 V, 30 / 00 / 12 Average use : 56 W Average use : 60 W			
Power Consumption	Stand-by condition : 1.8 W		Stand-by condition : 1.8 W	
i ener eenempien	TV set DC 15 V, 3.2 A max.		TV set DC 15 V, 3.4 A max.	
LCD	17-inch (432 mm)		20-inch (510mm)	
200	4:3 aspect ratio LCD panel $(640 \times 480 \text{ pixel})$		4:3 aspect ratio LCD panel (640×480 pixel)	
Screen Size	343.7 mm (W) × 261.6 mm (H)		408.0 mm (W) × 306.0 mm (H)	
Sound			()	
Speaker	ϕ 4 cm, 2 pcs, 16 Ω			
Audio Output	6.0 W (3.0 W + 3.0 W), 10 % THD			
Headphones	M3 (3.5 mm) Jack × 1			
Receiving Systems/	17 Systems	Function		
Band name	1 PAL B, G, H	1 dilotion		
	2 PAL I 3 PAL D, K	Reception of br		
	4 SECAM B, G	transmissions and Playback from Video Cassette Tape		
	6 SECAM K1	Recorders		
	7 NTSC M (NTSC 3.58 / 4.5 MHz) 8 NTSC 4.43 / 5.5 MHz			
	9 NTSC 4.43 / 6.0 MHz			
	10 NTSC 4.43 / 6.5 MHz 11 NTSC 3.58 / 5.5 MHz	Playback from Special VCR's		
	12 NTSC 3.58 / 6.0 MHz 13 NTSC 3.58 / 6.5 MHz			
	14 SECAM I			
	15 PAL 60 Hz / 5.5 MHz 16 PAL 60 Hz / 6.0 MHz	Playback from Special Disc Players and Special VCR's		
	17 PAL 60 Hz / 6.5 MHz			
Receiving Channels	Regular TV			
	VHF BAND UHF BAND CATV			
	2-12 (PAL/SECAM B, K1) 21-69 (PAL G, H, I/SECAM G, K, K1) S1-S20 (OSCAR)			
		-69 (PAL B AUST.) 1-125 (U.S.A CATV)		
		7 (PAL D, K) C13-C49 (JAPAN)		
		62 (NTSC M Japan) S21-S41 (HYPER) 69 (NTSC M U.S.A) Z1-Z37 (CHINA)		S21-S41 (HYPER)
		9 (NISCINU	5A,9A (AUST.)	
Aerial - Rear	UHF / VHF			
Operating Conditions	Temperature : 5 °C - 40 °C			
	Humidity : 5 % - 90 % RH (non-c	condensing)		
Connection Terminals				
AV1	VIDEO (RCA Pin Type)		1.0 Vp-p (75 Ω)	
	S-VIDEO (MINI DIN 4-pin)	Y:1.0 Vp-p (75 Ω) C:0.286 Vp-p (75 Ω)		
	AUDIO L-R (RCA Pin Type \times 2)		0.5 Vrms	
AV2	VIDEO (RCA Pin Type)			
	AUDIO L-R (RCA Pin Type × 2) 0.5 Vrms			
	Y 1.0 Vp-p (including synchronization		synchronization)	
			±0.35 Vp-p	
MONITOR OUT	VIDEO (RCA Pin Type)		1.0 Vp-p (75 Ω)	
			1.0 Vp-p (75 Ω) 0.5 Vrms	
Dimensions (W × H × D)	VIDEO (RCA Pin Type) AUDIO L-R (RCA Pin Type × 2)		0.5 Vrms	
Dimensions (W × H × D) Including TV Stand	VIDEO (RCA Pin Type) AUDIO L-R (RCA Pin Type × 2) 424 mm × 415 mm × 215 mm		0.5 Vrms 494 mm × 461 mm	
Dimensions (W × H × D)	VIDEO (RCA Pin Type) AUDIO L-R (RCA Pin Type × 2)		0.5 Vrms	

Note:

Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

Customer' Record

The model number and serial number of this product can be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number

Serial Number

Matsushita Electric Industrial Co., Ltd.

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